

POISONING, BITES, DIABETIC EMERGENCIES

FN Brno, October 2011



POISONING

Poisoning

- **Unintentional:** result from exposure to or ingestion of toxic substances, including drugs and alcohol, chemicals, contaminated food
- **Intentional:** in cases attempted suicide



Poisoning

- The effect depends on the **type** and **amount** of substance absorbed
- A poison (toxin) may cause **temporary** or **permanent** damage
- Poisons can be swallowed, absorbed through the skin, inhaled, splashed into the eyes or injected

Poisoning

- A poison, after entering to the body, may enter the bloodstream and be carried to all organs and tissues
- **Signs and symptoms:** vary with the poison (develops quickly or over a number of days)
 - : local signs
 - : systemic signs

Swallowed poisons

Drugs and alcohol, cleaning and gardening products, plant poisons, bacterial and viral (food) poisons

Effects: nausea, vomiting, abdominal pain, seizure, irregular, fast or slow heartbeat, impaired consciousness



Inhaled

Industrial poisons, fumes from fires,
chlorine

Effects: headache, confusion, difficulty
breathing, cyanosis

Absorbed through the skin

Cleaning and gardening products, plant
poisons

Effects: pain, swelling, rash, redness,
itching

Splashed in the eyes

Effects: pain and watering of the eye, blurred vision, inability to open the injured eye

Injected through the skin

Venom from stings and bites, drugs

Effects: pain, redness and swelling at injection site, nausea, vomiting, difficulty breathing, seizures, anaphylactic shock

Poisoning first aid

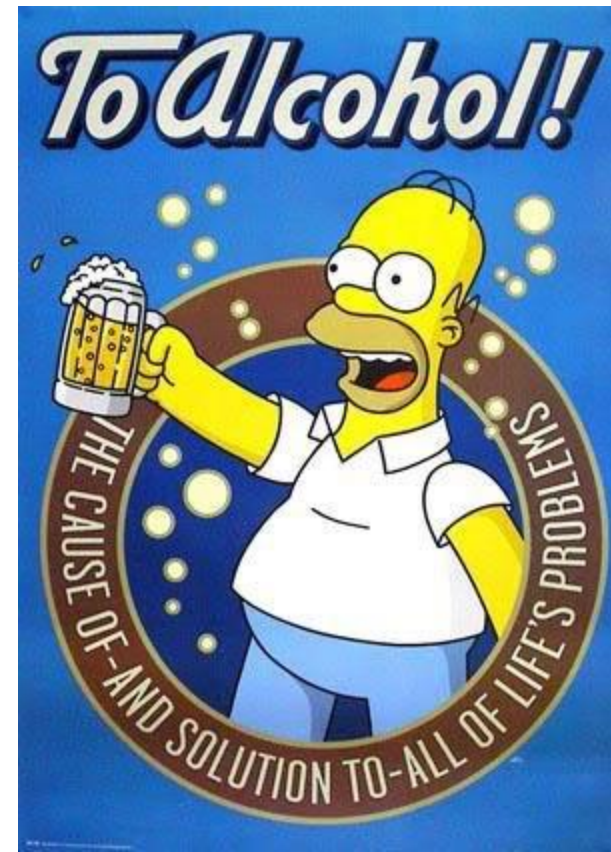
- Identify the poison
- Monitor victim
- Seek medical help
- Resuscitate if necessary
- Help victim into fresh air
- Remove contaminated clothing, wash area for at least 10 minutes (absorption through the skin)
- Irrigate the eye

DO NOT INDUCE VOMITING !



Alcohol poisoning

- **Depresses the activity of the central nervous system**
- Impairs all physical and mental functions
- Risks from alcohol poisoning:
 - inhaling and choking on vomit
 - losing heat, hypothermia
 - underlying condition often misdiagnosed



Alcohol poisoning

- **First aid:**
 - cover the person with a coat **to protect from the cold**
 - **asses** the person for any injuries
 - monitor and **record vital signs** (level of response, pulse, breathing)
 - if unconscious – recovery position

Methanol poisoning

- Over 50 death casualties over last year in CR
- Accidental poisoning
- Inability to recognize methanol while drinking it and distinguish it from ethanol and so avoid drinking greater amount of it
- Antifreeze, windshield wipe fluid
- Methanol – contaminated alcohol

Methanol poisoning

confusion

abdominal pain

headache

inarticulate speaking

visual impairment,

seizures, coma

Methanol poisoning

- Prognosis
 - 4 ml can cause blindness
 - 30 ml death
- First aid
 - Drink 150-200 ml strong 40 % alc. volume liquor – known origin
 - Call EMS
- Hospital management
 - Gastric irrigation, Antidote – ethanol or fomepizole, supportive treatment

Drug poisoning

- Prescribed
- Over the counter
- Drug abuse



Drug poisoning – NS depressants

- Unconsciousness, shallow breathing, weak or abnormally slow or fast pulse, meiosis
- Illicit drugs : morphine heroin



Drug poisoning- Stimulants and hallucinogens

- Stimulants and hallucinogens (amphetamines - Ecstasy , LSD, cocaine):
- Excitable, hyperactive behavior, wildness, sweating, tremor of the hands, hallucinations



Food and fungi poisoning



Food and fungi poisoning

- Common
- Symptoms may **develop rapidly** (within 2-6 hours): nausea, vomiting, abdominal pains, headache, fever
mushrooms: vomiting, severe watery diarrhea, hallucinations, poisoning may be fatal
- Danger: **dehydration**
liver failure

Poisoning - hospital management

- Supportive therapy: ABC
- Slow absorption of the poison :
 - Orogastric lavage
 - Activated charcoal
- Promote removal from body
 - Forced diuresis, hemodialysis
- Special antidotes



BITES AND STINGS

Insect sting



Insect sting

Sting from a bee, wasp or hornet

Recognition: pain at the site of sting,
swelling, redness

Sting in the mouth or throat – swelling can
obstruct the airway

Serious reaction - **anaphylactic shock**

First aid :

raise the affected part

apply an ice pack or cold
compress

Bites



Bites

- Bites from certain species of **scorpions and spiders, snakes** (vipers, exotic snakes), **sea creatures**
- Bites in the mouth or throat are dangerous because swelling can **obstruct the airway**
- Be alert to an **allergic reaction**
- Can cause serious illness and may be **fatal** (spiders, snakes)

Bites - First aid

- Raise the affected part
- Apply an ice pack or cold compress
- Wash the wound, compression bandage above the wound
- Immobilize
- Note the snakes appearance



Anaphylactic shock

- Severe allergic reaction
- Contact with trigger factor
- Develop within seconds or minutes
- Triggers: skin or airborne contact with particular material
the injection of drug
the sting of insect
food (shrimps, peanuts)



Anaphylactic shock



- Chemicals are released to blood
- Dilatation of blood vessels
- Constriction of air passages (bronchoconstriction)
- Swelling of tongue, throat

Treatment: adrenalin (auto-injector)



DIABETIC EMERGENCIES

Diabetic emergencies

- Hypoglycemia – low blood sugar
- Hyperglycemia – high blood sugar



Hypoglycemia

- Develops quickly – over few hours
 - Weakness, hunger/nausea
 - Sweating, cold, clummy
 - Strange behaviour
-
- FA : sugary drink, sweet food

Hyperglycemia

- Develops slowly – over days
- Weakness
- Warm, dry skin
- Drowsiness

- FA :transport to hospital

If in doubt- give sugary drink – little harm in hyperglycemia

Questions ?

